STIC Biotechnology Systems Branch

RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information
Center (STIC) detected errors when processing the following computer readable
form:

Application Serial Number: *10/589,955*

Source: *1FWP,*

Date Processed by STIC: *8/28/06*

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.
PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:
1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE
   APPLICANT, WITH A NOTICE TO COMPLY or,
2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A
   NOTICE TO COMPLY
FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT
MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE **CHECKER
VERSION 4.4.0 PROGRAM**, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

   http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is
a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.
Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.
Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the
United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (**<http://www.uspto.gov/ebc/efs/downloads/documents.htm>** , **EFS Submission
   User Manual - ePAVE**)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (**EFFECTIVE 01/14/05**):
   U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street,
   Alexandria, VA 22314

Revised 01/10/06

Raw Sequence Listing Error Summary

ERROR DETECTED	SUGGESTED CORRECTION	SERIAL NUMBER: 10/589,955

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

1____Wrapped Nucleics
Wrapped Aminos — The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."

2____Invalid Line Length — The rules require that a line not exceed 72 characters in length. This includes white spaces.

3____Misaligned Amino Numbering — The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.

4____Non-ASCII — The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.

5____Variable Length — Sequence(s)____contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.

6____PatentIn 2.0 "bug" — A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.

7____Skipped Sequences (OLD RULES) — Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
(i)   SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
This sequence is intentionally skipped
Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.

8____Skipped Sequences (NEW RULES) — Sequence(s) _____ missing. If intentional, please insert the following lines for each skipped sequence.
<210> sequence id number
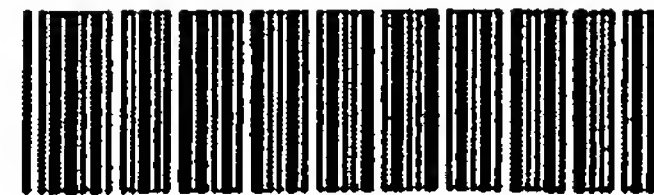<400> sequence id number
000

9____Use of n's or Xaa's (NEW RULES) — Use of n's and/or Xaa's have been detected in the Sequence Listing.
Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

10____Invalid <213> Response — Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence. (see item 11 below)

11____Use of <220> — Sequence(s) ___ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules

12____PatentIn 2.0 "bug" — Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.

13____Misuse of n/Xaa — "n" can only represent a single <u>nucleotide</u>; "Xaa" can only represent a single <u>amino acid</u>

AMC – STIC Systems Branch – 03/02/06

IFWρ

RAW SEQUENCE LISTING   DATE: 08/28/2006
PATENT APPLICATION: US/10/589,955   TIME: 09:40:09

   Input Set : A:\PTO.RJ.txt
   Output Set: N:\CRF4\08282006\J589955.raw

   3 <110> APPLICANT: National Institute of Advanced Industrial Science and Technology
   4   Kinki University
   5   Kitakyushu Foundation for the Advancement of Industry
   7 <120> TITLE OF INVENTION: Cytoplasm-localized DNA and RNA
   9 <130> FILE REFERENCE: 05-102NIQ
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/589,955
C--> 11 <141> CURRENT FILING DATE: 2006-08-18
   11 <150> PRIOR APPLICATION NUMBER: JP 2004-045488
   12 <151> PRIOR FILING DATE: 2004-02-20
   14 <150> PRIOR APPLICATION NUMBER: JP 2004-136228
   15 <151> PRIOR FILING DATE: 2004-04-30
   17 <160> NUMBER OF SEQ ID NOS: 28
   19 <170> SOFTWARE: PatentIn version 3.1

see item 4 on Error Summary Sheet

Does Not Comply Corrected Diskette Needed

see pp 1-6

ERRORED SEQUENCES

   133 <210> SEQ ID NO: 9
   134 <211> LENGTH: 31
   135 <212> TYPE: RNA
   136 <213> ORGANISM: Artificial
   138 <220> FEATURE:
   139 <223> OTHER INFORMATION: Probe
   141 <400> SEQUENCE: 9
E--> 142 cuacaucacg ccagucaact t
   145 <210> SEQ ID NO: 10
   146 <211> LENGTH: 31
   147 <212> TYPE: RNA
   148 <213> ORGANISM: Artificial
   150 <220> FEATURE:
   151 <223> OTHER INFORMATION: Probe
   153 <400> SEQUENCE: 10
E--> 154 guugacuggc gugauguag t t   21
   259 <210> SEQ ID NO: 19
   260 <211> LENGTH: 22
   261 <212> TYPE: RNA
   262 <213> ORGANISM: Artificial
   264 <220> FEATURE:
   265 <223> OTHER INFORMATION: Linker
   267 <220> FEATURE:
   268 <221> NAME/KEY: modified_base
   269 <222> LOCATION: (1)..(1)
   270 <223> OTHER INFORMATION: Linker

t's not allowed in an RNA sequence. For a combined DNA/RNA sequence, use <212> DNA and explain in <220>-<223> section   21

same error

same

file://C:\CRF4\Outhold\VsrJ589955.htm   8/28/2006

RAW SEQUENCE LISTING   DATE: 08/28/2006
PATENT APPLICATION: US/10/589,955   TIME: 09:40:09

Input Set : A:\PTO.RJ.txt
Output Set: N:\CRF4\08282006\J589955.raw

"n" can only represent a single nucleotide, nothing else

```
273 <220> FEATURE:
274 <221> NAME/KEY: misc_feature
275 <222> LOCATION: (1)..(1)
276 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH.sub.2
279 <400> SEQUENCE: 19
E--> 280 ncuacaucac gccagucaac tt                                                    22
283 <210> SEQ ID NO: 20
284 <211> LENGTH: 22
285 <212> TYPE: RNA
286 <213> ORGANISM: Artificial
288 <220> FEATURE:
289 <223> OTHER INFORMATION: Linker
291 <220> FEATURE:
292 <221> NAME/KEY: modified_base
293 <222> LOCATION: (1)..(1)
294 <223> OTHER INFORMATION: Linker
297 <220> FEATURE:
298 <221> NAME/KEY: misc_feature
299 <222> LOCATION: (1)..(1)
300 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH.sub.2
303 <400> SEQUENCE: 20
E--> 304 nguugacugg cgugauguag tt                                                    22
307 <210> SEQ ID NO: 21
308 <211> LENGTH: 21
309 <212> TYPE: RNA
310 <213> ORGANISM: Artificial
312 <220> FEATURE:
313 <223> OTHER INFORMATION: Modified thymidine
315 <220> FEATURE:
316 <221> NAME/KEY: modified_base
317 <222> LOCATION: (20)..(20)
318 <223> OTHER INFORMATION: Modified thymidine
321 <400> SEQUENCE: 21
E--> 322 cuacaucacg ccagucaac t t                                                    21
325 <210> SEQ ID NO: 22
326 <211> LENGTH: 21
327 <212> TYPE: RNA
328 <213> ORGANISM: Artificial
330 <220> FEATURE:
331 <223> OTHER INFORMATION: Modified thymidine
333 <220> FEATURE:
334 <221> NAME/KEY: modified_base
335 <222> LOCATION: (20)..(20)
336 <223> OTHER INFORMATION: Modified thymidine
339 <400> SEQUENCE: 22
E--> 340 guugacuggc gugauguag t t                                                    21
343 <210> SEQ ID NO: 23
344 <211> LENGTH: 21
345 <212> TYPE: RNA
```

same error as above

this does not describe Artificial Sequence

not acceptable in an RNA sequence

same error as above

same

RAW SEQUENCE LISTING   DATE: 08/28/2006
PATENT APPLICATION: US/10/589,955   TIME: 09:40:09

Input Set : A:\PTO.RJ.txt
Output Set: N:\CRF4\08282006\J589955.raw

```
      346 <213> ORGANISM: Artificial
      348 <220> FEATURE:
      349 <223> OTHER INFORMATION: Modified thymidine
      351 <220> FEATURE:
      352 <221> NAME/KEY: modified_base
      353 <222> LOCATION: (6)..(6)
      354 <223> OTHER INFORMATION: Modified thymidine
      357 <220> FEATURE:
      358 <221> NAME/KEY: modified_base
      359 <222> LOCATION: (15)..(15)
      360 <223> OTHER INFORMATION: Modified thymidine
      363 <400> SEQUENCE: 23
E-->  364 cuacaucacg ccagucaat t                                        21
      367 <210> SEQ ID NO: 24
      368 <211> LENGTH: 21
      369 <212> TYPE: RNA
      370 <213> ORGANISM: Artificial
      372 <220> FEATURE:
      373 <223> OTHER INFORMATION: Modified thymidine
      375 <220> FEATURE:
      376 <221> NAME/KEY: modified_base
      377 <222> LOCATION: (7)..(7)
      378 <223> OTHER INFORMATION: Modified thymidine
      381 <220> FEATURE:
      382 <221> NAME/KEY: modified_base
      383 <222> LOCATION: (12)..(12)
      384 <223> OTHER INFORMATION: Modified thymidine
      387 <220> FEATURE:
      388 <221> NAME/KEY: modified_base
      389 <222> LOCATION: (15)..(15)
      390 <223> OTHER INFORMATION: Modified thymidine
      393 <220> FEATURE:
      394 <221> NAME/KEY: modified_base
      395 <222> LOCATION: (17)..(17)
      396 <223> OTHER INFORMATION: Modified thymidine
      399 <400> SEQUENCE: 24
E-->  400 guugacuggc gugauguag t t                                      21
      403 <210> SEQ ID NO: 25
      404 <211> LENGTH: 21
      405 <212> TYPE: RNA
      406 <213> ORGANISM: Artificial
      408 <220> FEATURE:
      409 <223> OTHER INFORMATION: Linker
      411 <220> FEATURE:
      412 <221> NAME/KEY: modified_base
      413 <222> LOCATION: (1)..(1)
      414 <223> OTHER INFORMATION: Linker
      417 <220> FEATURE:
      418 <221> NAME/KEY: misc_feature
```

RAW SEQUENCE LISTING   DATE: 08/28/2006
PATENT APPLICATION: US/10/589,955   TIME: 09:40:09

                Input Set : A:\PTO.RJ.txt
                Output Set: N:\CRF4\08282006\J589955.raw

    419 <222> LOCATION: (1)..(1)
    420 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH-R.sup.1
    423 <400> SEQUENCE: 25
E--> 424 ncuacaucac gccagucaac tt   22
    427 <210> SEQ ID NO: 26
    428 <211> LENGTH: 21
    429 <212> TYPE: RNA
    430 <213> ORGANISM: Artificial
    432 <220> FEATURE:
    433 <223> OTHER INFORMATION: Modified thymidine
    435 <220> FEATURE:
    436 <221> NAME/KEY: modified_base
    437 <222> LOCATION: (20)..(20)
    438 <223> OTHER INFORMATION: Modified thymidine
    441 <400> SEQUENCE: 26
E--> 442 cuacaucacg ccagucaact t   21
    445 <210> SEQ ID NO: 27
    446 <211> LENGTH: 22
    447 <212> TYPE: RNA
    448 <213> ORGANISM: Artificial
    450 <220> FEATURE:
    451 <223> OTHER INFORMATION: Modified thymidine
    453 <220> FEATURE:
    454 <221> NAME/KEY: modified_base
    455 <222> LOCATION: (1)..(1)
    456 <223> OTHER INFORMATION: Linker
    459 <220> FEATURE:
    460 <221> NAME/KEY: modified_base
    461 <222> LOCATION: (21)..(21)
    462 <223> OTHER INFORMATION: Modified thymidine
    465 <220> FEATURE:
    466 <221> NAME/KEY: misc_feature
    467 <222> LOCATION: (1)..(1)
    468 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2-NH-R.sup.1
    471 <400> SEQUENCE: 27
E--> 472 ncuacaucac gccagucaac tt   22
    475 <210> SEQ ID NO: 28
    476 <211> LENGTH: 22
    477 <212> TYPE: RNA
    478 <213> ORGANISM: Artificial
    480 <220> FEATURE:
    481 <223> OTHER INFORMATION: Modified thymidine
    483 <220> FEATURE:
    484 <221> NAME/KEY: modified_base
    485 <222> LOCATION: (1)..(1)
    486 <223> OTHER INFORMATION: Linker
    489 <220> FEATURE:
    490 <221> NAME/KEY: modified_base
    491 <222> LOCATION: (3)..(3)

RAW·SEQUENCE LISTING   DATE: 08/28/2006
PATENT APPLICATION: US/10/589,955   TIME: 09:40:09

Input Set : A:\PTO.RJ.txt
Output Set: N:\CRF4\08282006\J589955.raw

```
492 <223> OTHER INFORMATION: Modified thymidine
495 <220> FEATURE:
496 <221> NAME/KEY: modified_base
497 <222> LOCATION: (7)..(7)
498 <223> OTHER INFORMATION: Modified thymidine
501 <220> FEATURE:
502 <221> NAME/KEY: modified_base
503 <222> LOCATION: (16)..(16)
504 <223> OTHER INFORMATION: Modified thymidine
507 <220> FEATURE:
508 <221> NAME/KEY: modified_base
509 <222> LOCATION: (21)..(21)
510 <223> OTHER INFORMATION: Modified thymidine
513 <220> FEATURE:
514 <221> NAME/KEY: misc_feature
515 <222> LOCATION: (1)..(1)
516 <223> OTHER INFORMATION: "n" is -O-CH.sub.2CH.sub.2-O-CH.sub.2CH.sub.2NH-R.sup.1
519 <400> SEQUENCE: 28
520 ncuacaucac gccagucaac tt                                            22
```

```
<210>   2
<211>   10
<212>   PRT
<213>   (PKIfι)

<400>   2
Leu Ala Leu Lys Leu Ala Gly Leu Asp Ile
1               5                       10
```

1) do **not** use scientific symbols. They cannot be processed by CRF software.

2) invalid <213> response
(see item 10 on Error Summary Sheet)

```
<210>   3
<211>   13
<212>   PRT
<213>   (MAPKK)
```

same error

⟿ This type of error appears in subsequent sequences, too.

VERIFICATION SUMMARY   DATE: 08/28/2006
PATENT APPLICATION: US/10/589,955   TIME: 09:40:10

Input Set : A:\PTO.RJ.txt
Output Set: N:\CRF4\08282006\J589955.raw

```
L:11 M:270 C: Current Application Number differs, Replaced Current Application No
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:142 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:154 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:280 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:280 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:304 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 after pos.:0
L:304 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:322 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:340 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:364 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:400 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:424 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0
L:424 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:442 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:472 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:27 after pos.:0
L:472 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
L:520 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:28 after pos.:0
L:520 M:321 E: (1) "t" not allowed in RNA Sequence, NUMBER OF INVALID 't' KEYS:2
```